Using the Import / Export Utility in Batch Mode

This section covers the following topics:

- Required JCL Specifications
- Export of Selected Objects
- Export of All Objects
- Import
- Natural Batch Condition Codes

Required JCL Specifications

For mass import or export, you should use the Import/Export Utility in batch mode. To do this, your JCL should conform to the following specifications:

Required Natural parameters:

ESIZE=64 to avoid storage overflow errors
FDIC and LFILE with the values of your current Entire Operations version.

Notes:

1. Use LFILE 216 for both your Natural Operations system file (export only) and your Entire Operations system file 1 (import and export).
2. LFILE 131 is used for the SAT log file.

LOGON:

```
LOGON <SYSEOR>
```

Whenever a parameter is not required (e.g. no library, if Location is WRK), enter a hyphen (-) for this parameter.

During import or export information about the process is written to SYSOUT. When the Import / Export Utility terminates, it writes a last message to SYSOUT, to inform you that the function ended successfully.

Export of Selected Objects

```
IE-EX--P <OBJECT TYPE> <LOCATION> <LIBRARY> <MEMBER> <APPEND/NEW> <EXPORT PASSWORDS> <EXPORT SCHEDULES>
<KEY FIELD 1> <KEY FIELD 2><KEY FIELD 3> <KEY FIELD 4>
```

Field	Format	Description	
OBJECT-TYPE	A20	A valid object type (see list in the subsection Export Objects).	
LOCATION	A3	The location of the file that should be created.	
		NAT	Export to Natural text member. See also fields LIBRARY and MEMBER.
		WRK	Export to work file. Work file 1 has to be defined.
		Notes:	1. The work file format must be the same as for Natural INPL utility. 2. The location PC is not available in batch mode, since it requires Entire Connection as transport medium.
LIBRARY	A8	**Only for Location NAT**. Enter the name of the library, where the Natural member should be created. Leave this field blank if the location is not NAT.	
MEMBER	A8	**Only for Location NAT**. Enter the prefix (max. 5 digits) of the Natural member you want to create or append to. Entering the prefix PREF creates the members PREF--001, PREF--002, PREF--003, ...), depending on the amount of data. Leave this field blank if the location is not NAT.	
APPEND/NEW	A1	**A**	Append to existing output file. This output file must be defined with OP=EXTEND in the /FILE statement (for BS2000/OSD) or the DD statement (for OS/390).
		N	Create new output file.
EXPORT PASSWORDS	A1	**Y**	Export passwords.
		N	Do not export passwords.
EXPORT SCHEDULES	A1	**Y**	Export schedules.
		N	Do not export Schedules.
KEY FIELD 1 KEY FIELD 2 KEY FIELD 3 KEY FIELD 4	A20	Required key fields, specific to objects (see Key Fields of the Objects).	

Example

This example deals with the export of network E60-FLOW of owner EXAMPLE to Work File 1 including schedules.

```
IE-EX--P NETWORK-MASTER WRK - - N N Y EXAMPLE E60-FLOW
```

Export of All Objects

```
IE-EXA-P <LOCATION> <LIBRARY> <MEMBER-PREFIX> <APPEND/NEW> <EXPORT PASSWORDS>
<EXPORT SCHEDULES>
```

All parameters are described above in the subsection Export of Selected Objects.

Example

This example deals with the Export of the whole environment to Natural library PROD members starting with EXP--001.

```
EX-ALL-P NAT PROD EXP N Y Y
```

Import

- IE-IM--P
- Example 1
- Example 2

IE-IM--P

```
IE-IM--P <LOCATION> <LIBRARY> <MEMBER> <INITIAL MODE> <ERROR LIMIT> <WARNING LIMIT>
[<OWNER> <NETWORK> <JOB>]
```

Field	Format	Description	
LOCATION	A3	The location of the import file. Possible values:	
		NAT	Import from Natural text member. See also fields LIBRARY and MEMBER.
		WRK	Import from work file. Work File 1 must be assigned.
		Note:	The location PC is not available in batch mode, since it requires Entire Connection as transport medium.
LIBRARY	A8	**Only for Location NAT**. Enter the name of the library, where the Natural member(s) is/are located. Leave this field blank, if the location is not NAT.	
MEMBER	A8	**Only for Location NAT**. Enter the prefix of the Natural members you want to read. Leave this field blank, if the location is not NAT.	
INITIAL MODE	A1	**A**	Add
		C	Check
		D	Delete
		U	Update
ERROR LIMIT	I4	The number of errors, after which the import is interrupted.	
WARNING LIMIT	I4	The number of warnings, after which the import is interrupted.	
To select a range of objects for import, you can add the parameters OWNER, NETWORK and JOB. Wildcards * are allowed. See **Notes** under Field Descriptions: Import Objects.			
OWNER	A10	Owner selection for import.	
NETWORK	A10	Network selection for import.	
JOB	A10	Job selection for import.	

Example 1

Import from Work File 1, check only; any number of errors and warnings.

```
IE-IM--P WRK - - C 99999 99999
```

Example 2

Import from NAT; Add Object; Owner EXAMPLE, Network E01* only.

```
IE-IM--P NAT - - A 99999 99999 EXAMPLE E01*   *
```

Natural Batch Condition Codes

Depending on warnings and / or errors during a batch import or export, the Natural batch execution will return one of the following **condition codes**:

Code	Description	0	Import / Export ended OK.		
4	Warnings were issued.	8	At least one error occurred.		
16	A fatal error occurred (e.g., a parameter error).				